IN THE CLAIMS

1. (currently amended) A method of transmitting an ICMP (Internet Control Message Protocol) data frame to a transmission source in response to an IP (Internet Protocol) data frame received from the transmission source when detecting a failure of ~~regarding~~ the IP data frame, said method comprising the steps of:

storing information about necessity of generating the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

determining the necessity of generating the ICMP data frame based on said stored information and a cause of the failure of the IP data frame, which cause is received when the failure is detected ~~by referring to the information when detecting the failure~~;

generating the ICMP data frame if it is determined that generation of the ICMP data frame is necessary; and

transmitting the ICMP data frame to the transmission source if the ICMP data frame is generated.

2. (original) A method of transmitting an ICMP data frame to a transmission source in response to an IP (Internet Protocol) data frame received from the transmission source when detecting failure regarding the IP data frame, said method comprising the steps of:

storing information about necessity of transmitting the ICMP data frame and a transmission rate of the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

generating the ICMP data frame when detecting the failure;

determining the necessity of transmitting the ICMP data frame by referring to the information;

filtering the ICMP data frame, based on the transmission rate if it is determined that transmission of the ICMP data frame is necessary; and

transmitting the ICMP data frame to the transmission source, if the ICMP data frame is filtered.

3. (currently amended) A node apparatus transmitting an ICMP data frame to a transmission source in response to an IP data frame received from the transmission source when detecting failure regarding the IP data frame, said node apparatus comprising:

an information database storing information about necessity of generating the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

an information management unit determining the necessity of generating the ICMP data frame ~~by referring to~~ based on said information stored in said information database and a cause of the failure of the IP data frame, which cause is received when said node apparatus detects the failure; and

a processing unit generating the ICMP data frame if said information management unit determines that generation of the ICMP data frame is necessary,

wherein said node apparatus transmits the ICMP data frame to the transmission source if said processing unit generates the ICMP data frame.

4. (currently amended) A node apparatus transmitting an ICMP data frame to a transmission source in response to an IP data frame received from the transmission source when detecting failure regarding the IP data frame, said node apparatus comprising:

an information database storing information about necessity of generating the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

an information management unit determining the necessity of generating the ICMP data frame by referring to said information database when said node apparatus detects the failure; and

a processing unit generating the ICMP data frame if said information management unit determines that generation of the ICMP data frame is necessary,

wherein said node apparatus transmits the ICMP data frame to the transmission source if said processing unit generates the ICMP data frame;

~~The node apparatus as claimed in claim 3,~~ said node apparatus further comprising:

a system-condition database storing information about the necessity of generating the ICMP data frame in accordance with a system condition of said node apparatus; and

a system-condition management unit determining the necessity of generating the ICMP data frame by referring to said system-condition database when said node apparatus detects the failure,

wherein said processing unit generates the ICMP data frame if said system-condition management unit determines that the generation of the ICMP data frame is necessary.

5. (original) A node apparatus transmitting an ICMP data frame to a transmission source in response to an IP data frame received from the transmission source when detecting failure regarding the IP data frame, said node apparatus comprising:

an information database storing information about necessity of transmitting the ICMP data frame and a transmission rate of the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

a processing unit generating the ICMP data frame when said node apparatus detects the failure;

an information management unit determining the necessity of transmitting the ICMP data frame by referring to said information database; and

a filtering unit filtering the ICMP data frame, based on the transmission rate if said information management unit determines that transmission of the ICMP data frame is necessary,

wherein said node apparatus transmits the ICMP data frame to the transmission source if the ICMP data is filtered by said filtering unit.

6. (original) The node apparatus as claimed in claim 5, further comprising:

a system-condition database storing information about necessity of generating the ICMP data frame in accordance with a system condition of said node apparatus; and

a system-condition management unit determining the necessity of generating the ICMP data frame by referring to said system-condition database when said node apparatus detects the failure,

wherein said processing unit generates the ICMP data frame if said system-condition management unit determines that generation of the ICMP data frame is necessary.

7. (original) A node apparatus transmitting an ICMP data frame to a transmission source in response to an IP data frame received from the transmission source when detecting failure regarding the IP data frame, said node apparatus comprising:

an information database storing information about necessity of generating the ICMP data frame, necessity of transmitting the ICMP data frame, and a transmission rate of the ICMP data frame for each attribute of the ICMP data frame corresponding to a type of the failure;

an information management unit determining the necessity of generating the ICMP data frame, the necessity of transmitting the ICMP data frame, and the transmission rate, by referring to said information database when said node apparatus detects the failure;

a processing unit generating the ICMP data frame if said information management unit determines that generation of the ICMP data frame is necessary; and

a filtering unit filtering the ICMP data frame generated by said processing unit, based on the transmission rate if said information management unit determines transmission of the ICMP data frame is necessary,

wherein said node apparatus transmits the ICMP data frame to the transmission source if the ICMP data frame is filtered by said filtering unit.

8. (original) The node apparatus as claimed in claim 7, further comprising:

a system-condition database storing information about the necessity of generating the ICMP data frame in accordance with a system condition of said node apparatus; and

a system-condition management unit determining the necessity of generating the ICMP data frame by referring to said system-condition database when said node apparatus detects the failure,

wherein said processing unit generates the ICMP data frame if said system-condition management unit determines that the generation of the ICMP data is necessary.

9. (original) The node apparatus as claimed in claim 8, wherein said system-condition database further storing information about the necessity of transmitting the ICMP data frame and the transmission rate of the ICMP data frame in accordance with the system condition, said system-condition management unit determines the necessity of transmitting the ICMP data frame by referring to said system-condition database, and said filtering unit filters the ICMP data frame generated by said processing unit, based on the transmission rate if said system-management unit determines that the transmission of the ICMP data frame is necessary.

10. (original) The node apparatus as claimed in claim 7, further comprising:

a line-condition database storing information about the necessity of generating the ICMP data frame in accordance with a condition of a line connecting said node apparatus and a destination of the IP data frame; and

a line-condition management unit determining the necessity of generating the ICMP data frame by referring to said line-condition database when said node apparatus detects the failure,

wherein said processing unit generates the ICMP data frame if said line-condition management unit determines that the generation of the ICMP data is necessary.

11. (original) The node apparatus as claimed in claim 10, wherein said line-condition database further storing information about the necessity of transmitting the ICMP data frame and the transmission rate of the ICMP data frame in accordance with the line condition, said line-condition management unit determines the necessity of transmitting the ICMP data frame by referring to said line-condition database, and said filtering unit filters the ICMP data frame generated by said processing unit, based on the transmission rate if said line-management unit determines that the transmission of the ICMP data frame is necessary.